WHAT IS CLAIMED IS:

1. A run-flat tire support which is arranged in the interior of a pneumatic tire and attached to a rim together with the pneumatic tire, the run-flat tire being annular and capable of supporting a load at a time of run-flat travel, the run-flat tire support being characterized in that it has a cylindrical shell component attached to the exterior periphery side of the rim, and a material for the shell component is an aluminum alloy that is electromagnetically formed.

2. The run-flat tire support of claim 1 characterized in that holes having diameters of 0.5mm to 10.0mm are formed in the shell component.

3. The run-flat tire support of claim 1 or 2 characterized in that the aluminum alloy is any one of an Al-Mg aluminum alloy, an AL-MG-Si aluminum alloy, and an AL-Zn aluminum alloy.

4. The run-flat tire support of any one of claims 1 to 3, characterized in that the shell component has two convex portions projecting toward the exterior side in a radial direction in a radial cross section.

5. The run-flat tire support of claim 4, characterized in that a ratio B/A of a maximum exterior diameter of the convex portions A and a minimum exterior diameter B of the concave portion formed between the two convex portions in the shell component is from 0.60 to 0.95.

6. The run-flat tire support of any one of claims 1 to 5 characterized in that the board thickness of the shell component is from 0.5mm to 7.0mm.

7. A run-flat tire support which is arranged in the interior of a pneumatic tire and attached to a rim together with the pneumatic tire, the run-flat tire support being annular and capable of supporting a load at a time of run-flat travel, the run-flat tire support being characterized in that it is provided with at least two convex portions in a radial direction cross section of the support, each projecting towards an exterior side in the radial direction, and has a cylindrical shell component attached to an exterior periphery side of the rim, and cross sections along the peripheral direction in the vicinities of peak portions positioned at outermost periphery sides of the convex portions are honeycombed ribs that are successively formed on the entire periphery.

8. The run-flat tire support of claim 7, characterized in that holes having diameters of 0.5mm to 10.0mm are formed in the shell component.

9. The run-flat tire support of claim 7 or 8, characterized in that the shell component is formed by electromagnetic formation from any one of an Al-Mg aluminum alloy, an Al-Mg-Si aluminum alloy, and an Al-Zn aluminum alloy as the material.

10. A run-flat tire support manufacturing method for manufacturing a support which is arranged in the interior of a pneumatic tire and attached to a rim together with the pneumatic tire, the run-flat tire support being annular and capable of supporting a load at a time of run-flat travel, the method being characterized in that it includes: a first process for setting a cylindrical aluminum tube made from an aluminum

alloy in a forming jig;

a second process for loading the forming jig in order to prevent the aluminum tube from shifting position in upper or lower directions; and

a third process in which a coil is inserted into the aluminum tube and an electric current is run to the coil, whereby the aluminum tube is deformed to expand to an exterior side in a radial direction and a cylindrical shell component that is installed to the exterior periphery side of a rim is formed.

11. The run-flat tire support manufacturing method of claim 10, characterized in that after the third process, it includes a process for forming holes having diameters of 0.5mm to 10.0mm in the shell component.

12. A run-flat tire support manufacturing method for manufacturing a support which is arranged in the interior of a pneumatic tire and attached to a rim together with the pneumatic tire, the run-flat tire support being annular and capable of supporting a load at a time of run-flat travel, the method being characterized in that it includes:

a first process for setting a cylindrical aluminum tube made from an aluminum alloy inside a forming jig;

a second process for loading the forming jig in order to prevent the aluminum tube from shifting position in upper or lower directions; and

a third process in which a coil is inserted into the aluminum tube and an electric current is run to the coil, whereby the aluminum tube is deformed to expand to an exterior side in a radial direction and a cylindrical shell component that is installed to the exterior periphery side of a rim is formed while holes having diameters of 0.5mm to 10.0mm are formed in the support at the time of expanding deformation.

13. A run-flat tire support manufacturing method for manufacturing the run-flat tire support of any one of claims 7 to 9, the method being characterized in that it includes:

a first process for setting a cylindrical aluminum tube made from an aluminum alloy inside a forming jig;

a second process for loading the forming jig in order to prevent the aluminum tube from shifting position in upper or lower directions; and

a third process in which a coil is inserted into the aluminum tube and an electric current is run to the coil, whereby the aluminum tube is deformed to expand to the exterior side in the radial direction and the shell component is formed,

wherein in the third process, by protruding portions provided in interior periphery surface of the forming jig and having a honeycombed cross section along the peripheral direction, the vicinities of the peak portions of the convex portions are plastically deformed, whereby the ribs are formed in the vicinities of the peak portions.

14. The run-flat tire support manufacturing method of claim 13, characterized in that in the third process, by protruding portions provided in interior periphery surface of the forming jig and having a honeycombed cross section along the peripheral direction, the vicinities of the peak portions of the convex portions are plastically deformed, whereby the ribs are formed in the vicinities of the peak portions. while holes having diameters of 0.5mm to 10.0mm are formed in the shell component.

15. The run-flat tire support manufacturing method of claim 13, characterized in that after the third process, it includes a process for forming holes having diameters of 0.5mm to 10.0mm in the shell component.

16. The run-flat tire support manufacturing method of any of claims 10 to 15 characterized in that in the third process, air intervening between the aluminum tube and the forming jig is discharged to the exterior through exhaust holes provided in the forming jig.

17. A run-flat tire characterized in that it comprises:

a pneumatic tire attached to a rim, the tire compirising a toroidal carcass formed between a pair of bead cores,

side rubber layers forming tire side portions arranged at tire axial direction exterior side of the carcass, and

a tread rubber layer forming the tread portion arranged at the exterior side of radial direction carcass tire; and

a run-flat tire support of any of claims 1 to 9, the run-flat tire support being arranged in the interior of the tire and attached to the rim together withn the tire.

18. A run-flat tire support which is arranged in the interior of a pneumatic tire and attached to a rim together with the pneumatic tire, the run-flat tire support being annular and capable of supporting a load at a time of run-flat travel, the run-flat tire support being characterized in that it is provided with at least two convex portions that each project towards a radial directrion exterior side in a radial diection cross section of the support, and has a cylindrical shell installed to an exterior periphery side of the rim, and multiple holes that penetrate in the thickness direction are formed in the convex portions.

19. The run-flat tire support of claim 18, characterized in that a material of the shell component is any one of an aluminum alloy, high-tensile steel, and stainless steel.

20. The run-flat tire support of claim 18 or 19, characterized in that a ratio of an area of the multiple holes relative to an area of the convex portions including the multiple holes is made to be 1-50%.

21. The run-flat tire support of any of claims 18 to 20, characterized in that from end portions of exterior sides in the widthwise direction of the convex portions in the shell component to side portions extending to the exterior periphery sides, multiple holes that penetrate in the thickness direction are formed.

22. The run-flat tire of claim 21, characterized in that an area of the multiple holes relative to an area of the side portions including the multiple holes is made to be 1-50%.

23. The run-flat tire support of any of claims 18 to 22, characterized in that spaces between hole edges of the holes arranged so as to adjoin each other are made to be 1mm or more.

24. A run-flat tire characterized in that it has

a toroidal carcass formed between a pair of bead cores,

side rubber layers forming the tire side portions arranged at the exterior side of the tire axial direction of the carcass,

a tread rubber layer forming the tread portion arranged at the exterior side of radial direction carcass tire,

a tire installed to a rim, and

any one of the run-flat tire supports recited in claims 18 to 23 arranged in the

interior of the tire and attached with the tire to the rim.